

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listing of claims in the application.

1. (Currently amended) A method for assembling a modulatable polypeptidemolecule, comprising:

inserting randomly an insertion nucleic acid sequence into an acceptor nucleic acid sequence, wherein the insertion ~~nucleic acid~~ sequence encodes a polypeptide that recognizes a first signal and the acceptor ~~nucleic acid~~ sequence ~~each encodes a polypeptide that produces a responsive signal provided the responsive signal is not fluorescence, wherein the fused insertion and acceptor sequences encode a modulatable fusion polypeptide having the responsive signal functionally coupled to the first signal;~~ and

~~—selecting a nucleic acid molecule that encodes a polypeptide wherein the state of the polypeptide encoded by the acceptor nucleic acid is coupled to the state of the polypeptide encoded by the insertion nucleic acid, or the state of the polypeptide encoded by the insertion nucleic acid is coupled to the state of the polypeptide encoded by the acceptor nucleic acid.~~

2-13. (Cancelled)

14. (Previously Presented) The method of claim 1 wherein the modulatable molecule can switch between at least an active state and a less active state.

15 - 44. (Canceled)

45. (Previously Presented) The method of claim 1, wherein the inserting randomly an insertion nucleic acid sequence into an acceptor nucleic acid sequence is carried out by a method selected from: nuclease treatment, mechanical shearing, chemical treatment or radiation treatment.

46. (Currently amended) The method of claim 1, [[7,]] 14, or 45, wherein the method further comprises generating a duplication, deletion, substitution at the insertion site in the acceptor

nucleic acid sequence.

47. (Previously Presented) The method of claim 45, wherein nuclease treatment comprises digestion with a 3' to 5' exonuclease.

48. (New) The method according to claim 46, wherein the generating step occurs prior to the inserting step.